# ANALYSIS OF FOOT PLATE FOUNDATION IN BUILDING ACADEMIC SERVICES SPORTS SCIENCE FACULTY YOGYAKARTA STATE UNIVERSITY

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## Abstract

This study aims to determine the bearing capacity of foundation soil that occurs in floot plate, knowing the decline of the foundation plate floot, can analyze the structure of a good foundation floot plate and check to see if the foundation is secure against sliding due to verticalforce.

In this study data that includes data required land development project faculty athletic academic services building, State University of Yogyakarta and technical data. Methods used to process existing data using a formula that is based on tests sondir equation for the analysis of soil bearing capacity, using the planning guidelines for homes and buildings homes (SNI 1727-1989F).

Based on the analysis of the foundations of the pressure foot plate can be concluded on the basis of the foundation ($\sigma$ max) of 226,848 kN/m² and a license bearing capacity ($\sigma$a) at 284,16 kN/$m^2$. Analysis of the foundation foot plate at a depth of 3,1 m, dimensions of 1,7 m x 1,7 foot plates m to load: 1514,223 kN, thick soles (d): 0.3185 m, obtained reinforcement plate toward the palm D 13-125 the x-axis and D 13-125 y-axis direction. Immediate reduction in total that occurred at C13 joint sole foundation of the building construction project of Academic Services UNY FIK is a decrease due to the construction site is located immediately sandy soil region. Immediate reduction in the analysis process using Schmertmann (1970) with the immediate reduction of 6,95. Based on the above analysis that there was a decrease immediately eligible Si total where large < 25 mm.

**Keyword : foot plate foundation, analysis, decreased immediately**